

Title (en)

Method and system for optical network smart timer management via delay measurement between spans

Title (de)

Verfahren und System für die optische Netzwerk-Smart-Timer-Verwaltung per Verzögerungsmessung zwischen Spannen

Title (fr)

Procédé et système pour la gestion d'un temporisateur intelligent de réseau optique via la mesure du délai entre portées

Publication

EP 2451099 A3 20140820 (EN)

Application

EP 11187206 A 20111028

Priority

US 93890410 A 20101103

Abstract (en)

[origin: EP2451099A2] A method and system for determining timers in an High Level Data Link Control (HDLC) Traffic Manager (HTM) state machine are disclosed. According to one aspect, the invention provides for determining a transit delay between two nodes by sending a first packet having a delay measurement byte to a second node that is on a link between the first node and the second node. The method also includes receiving a second packet with the delay measurement byte from the second node. The delay measurement byte sent by the second node is adjusted by the second node to indicate its receipt by the second node. A measured delay value is determined. The measured delay value is the delay between a time of sending the first packet to the second node and receiving the second packet from the second node. The measured delay value is determined by the hardware of the first node. Upon determining the measured delay value, timer values of the HTM state machine are set based on the measured delay value.

IPC 8 full level

H04J 3/06 (2006.01); **H04J 14/00** (2006.01)

CPC (source: EP US)

H04J 3/065 (2013.01 - EP US); **H04L 43/0858** (2013.01 - EP US); **H04J 3/0667** (2013.01 - EP US); **H04J 2203/0085** (2013.01 - EP US); **H04L 69/28** (2013.01 - EP US)

Citation (search report)

- [I] WO 0108356 A1 20010201 - WUHAN RES INST OF POSTS AND TE [CN], et al
- [A] US 2010272438 A1 20101028 - CONKLIN RICHARD W [US], et al
- [A] US 2010085989 A1 20100408 - BELHADJ MED [CA], et al
- [A] GROVER W D ET AL: "PRECISION TIME-TRANSFER IN TRANSPORT NETWORKS USING DIGITAL CROSS-CONNECT SYSTEMS", IEEE TRANSACTIONS ON COMMUNICATIONS, IEEE SERVICE CENTER, PISCATAWAY, NJ. USA, vol. 38, no. 9, 1 September 1990 (1990-09-01), pages 1325 - 1332, XP000173208, ISSN: 0090-6778, DOI: 10.1109/26.61372
- [A] MASAMI KIHARA ET AL: "NEW NETWORK SYNCHRONIZATION TECHNIQUE THAT PROVIDES PRECISE FREQUENCY AND TIME REFERENCE", JAPAN TELECOMMUNICATION REVIEW, TELECOMMUNICATIONS ASSOCIATION. TOKYO, JP, vol. 5, no. 2, 1 March 1993 (1993-03-01), pages 25 - 29, XP000364715, ISSN: 0915-2334
- [A] KARN P ET AL: "Advice for Internet Subnetwork Designers; rfc3819.txt", 20040701, 1 July 2004 (2004-07-01), XP015009597, ISSN: 0000-0003

Cited by

US9014554B2; WO2014035546A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2451099 A2 20120509; EP 2451099 A3 20140820; EP 2451099 B1 20190904; US 2012106950 A1 20120503; US 8699346 B2 20140415

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